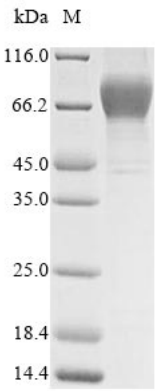
Recombinant Human Heat-stable enterotoxin receptor (GUCY2C), partial (Active)

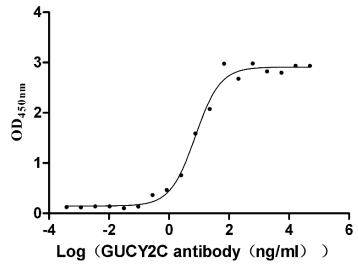
Product Code	CSB-MP010053HU
Relevance	Receptor for the E.coli heat-stable enterotoxin (E.coli enterotoxin markedly stimulates the accumulation of cGMP in mammalian cells expressing GC-C). Also activated by the endogenous peptides guanylin and uroguanylin.
Abbreviation	Recombinant Human GUCY2C protein, partial (Active)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P25092
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 μm filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized human GUCY2C at 5 μg/mL can bind Anti-GUCY2C recombinant antibody (CSB-RA010053A2HU), the EC_{50} is 11.89-24.13 ng/mL.
Purity	Greater than 95% as determined by SDS-PAGE.
Sequence	SQVSQNCHNGSYEISVLMMGNSAFAEPLKNLEDAVNEGLEIVRGRLQNAGLN VTVNATFMYSDGLIHNSGDCRSSTCEGLDLLRKISNAQRMGCVLIGPSCTYST FQMYLDTELSYPMISAGSFGLSCDYKETLTRLMSPARKLMYFLVNFWKTNDLP FKTYSWSTSYVYKNGTETEDCFWYLNALEASVSYFSHELGFKVVLRQDKEFQ DILMDHNRKSNVIIMCGGPEFLYKLKGDRAVAEDIVIILVDLFNDQYFEDNVTAP DYMKNVLVLTLSPGNSLLNSSFSRNLSPTKRDFALAYLNGILLFGHMLKIFLEN GENITTPKFAHAFRNLTFEGYDGPVTLDDWGDVDSTMVLLYTSVDTKKYKVLL TYDTHVNKTYPVDMSPTFTWKNSKLPNDITGRGPQ
Research Area	Microbiology
Source	Mammalian cell
Target Names	GUCY2C
Protein Names	Guanylyl cyclase C (GC-C) (Intestinal guanylate cyclase) (GUC2C) (STAR)
Expression Region	24-430aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged

Mol. Weight	49.6 kDa
Protein Length	Partial

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Activity
Measured by its binding ability in a functional ELISA. Immobilized human GUCY2C at 5 μg/ml can bind Anti-GUCY2C recombinant antibody (CSB-RA010053A2HU), the EC_{50} is 11.89-24.13 ng/mL.

Description

Recombinant human GUCY2C protein (24-430 AA) was fused to a 10xHis-tag at the N-terminus and expressed in the mammalian cells. This GUCY2C protein is characterized by high purity (>95%, SDS-PAGE), low endotoxin content (<1.0 EU/ug of the protein, LAL method), and biological activity. Its activity has been validated by binding to the anti-GUCY2C recombinant antibody in a functional ELISA, with the EC_{50} of 11.89-24.13 ng/mL. The GUCY2C protein has a calculated molecular weight of 49.6 kDa. It migrates as 60-90 kDa under reducing conditions (SDS-PAGE) due to glycosylation. And it is available now.

GUCY2C, an intestine-specific expressed transmembrane protein, participates in regulating intestinal function and Na+ dynamic balance, and promoting food digestion and absorption after being activated by STa, guanosine, and uroguanosine. GUCY2C is considered a colorectal cancer-specific antigen due to its high intestinal tissue specificity. To date, the GUCY2C protein has been used in vaccines, immunotoxins, and CAR-T cells, among other immunotherapies. Some trials have achieved good clinical results. The development and research of GUCY2C recombinant protein can promote and push the development of vaccines and treatment of GUCY2C-expressing tumors of the intestine.

Endotoxin	Less than 1.0 EU/ug as determined by LAL method.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a

	concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.